REMARKS

35 U.S.C. § 112

Claims 1, 4-16 and 18-20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirements, i.e. a new matter rejection. Specifically, claims 1 and 15 stand rejected for the language "at least one place of each recess or protrusion initiates at least one plane of another protrusion or recess." It is held that there is no *explicit* basis for this language in the original disclosure, as the words "at least" and "or" broadens the claim scope beyond that of the original disclosure.

Claims 1 and 15 have been amended to remove the rejected language and to clearly indicate the related planar relationships of the alternating recesses and protrusions. The structure as recited in the amended claims is clearly shown in Figures 1, 2 and 5 through 8b.

It is requested that this rejection be reconsidered and withdrawn.

Japan 2000-102925

Claims 1, 4-6, 10, 13, 15, 18 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Japan 925 (JP 2000-102925).

Figure 14 of Japan 925 is relied upon for supporting the rejection. In Figure 14, Japan 925 shows a sipe blade made of three stacked metal plates. In the translation provided, Japan 925 states that the sipe blade of Figure 14 has a structure similar to that of Example 6 – Example 6 being the blades shown in Figures 13a and 13b. Thus, it appears that the sole difference between the illustrated blades is the shape of the cutouts in the stacked metal plates – Figures 13a and 13b illustrating circular cutouts in the blades and Figure 14 illustrating square cutouts in the blade.

For the purpose of discussion and as Japan 925 does not show an actual illustration of the sipe formed by the taught blade, using the teachings of Japan 925, the attached Exhibit has been prepared. The Exhibit shows the blade of Figure 14 of Japan 925, and a sipe formed therefrom. Figure (a) is a side view of the blade – there being portions of the blade removed from opposing sides of the combined three plates – each removal having a thickness of two plates. Figure (b) is the blade of Figure (a) flipped as it would be if mounted to the underside of a tread mold ring. Figure (c) is a cross-sectional cut of a tread block having a sipe formed by the blade of Figures (a) and (b) and hence, the blade of Figure 14 of Japan 925. Figure (d) is a front plane view of the blade, without any shadow marking for what is not seen on this

side of the blade. For simplification, the mounting holes for the blade are not illustrated in any of the figures.

Claim 1 recites that the sipe has a first sipe face and an opposing sipe face. These features have been identified in Exhibit Figure (c). Claim 1 recites that each sipe face has rows of alternating recesses and protrusions. A review of Exhibit Figure (c) shows that each sipe face has a protrusion formed therein; however, neither sipe face has a recess formed therein. As defined in Webster's Dictionary, and as used in the present application, a recess is an indentation or cleft. There is no feature in either sipe face of the sipe formed by the blade of Japan 925 that meets this definition.

Additionally, in the rejection it is held that the claim language of at least one plane in each recess or protrusion initiates at least one plane in another protrusion or recess is met as the asserted recesses and protrusions in Japan 925 are defined by "a common portion" of the middle layer of the three layer mold. First, as the sipe formed by the blade of Japan 925 does not have any recesses, there is *no* initiation from a recess plane to a protrusion plane. Second, claim 1 recites that this initiation of the recess plane to the protrusion plane occurs at the sipe centerline. A review of Exhibit Figure (c), showing the sipe centerline, illustrates that there is the protrusions extend past the sipe centerline and there is no planar change occurring at the sipe centerline.

In claim 15, it is recited that the blade has a three-dimensional portion having at least two horizontal rows of alternating recesses and protrusions. As seen in Exhibit Figures (a) and (b), there are no protrusions in the blade. This is further seen in Exhibit Figure (d) where the blade is only seen from one side. Each side of the blade has a series of spaced recesses, but no protrusions. Additionally, as argued above with regard to claim 1, claim 15 recites that the planar change of protrusions and recesses occurs at the blade centerline. As the blade of Japan 925 is formed of three plates with the recesses going through two of the plates, any planar change does not occur at the blade centerline, but at a location spaced from the blade centerline. Forming the blade of Japan 925 from two plates with recesses would then result in a blade centerline aligned with vertex of the recess in the blade; however, the blade would still fail to anticipate the claimed blade as there are no protrusions in the blade.

As Japan 925 fails to teach a blade having a series of alternating recesses and protrusions and such blade fails to result in forming a sipe having alternating recesses and protrusions, then Japan 925 fails to teach or disclose each and every claim element and fails to anticipate the recited invention. It is requested that this rejection be reconsidered and

withdrawn.

Claims 1, 4-6, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japan 925 in view of at least one of Japan 105 (JP 2002-356105) and Japan 923 (JP 10-80923). This rejection is respectfully traversed for the following reasons:

Japan 105 and Japan 923 are relied upon to show a sipe of constant thickness. However, due to how the blade of Japan 925 is formed, i.e. the stacking of plates which is the essential teaching of Japan 925, would have to be altered to achieve a blade of constant thickness. To achieve a blade/sipe having a constant thickness, the areas of the blade not cut through would have to have the same number of plates as the non-cut out area. The way to achieve this and maintain the teachings of Japan 925, at least for the square recesses formed in the blade of Figure 14 of Japan 925, would be to apply the removed squares to the other side of the blade. This would require additional manufacturing steps in the blade of Japan 925.

To establish *prima facie* obviousness, there 1) must be some suggestion or motivation in the art to modify or combine the references; 2) must be a reasonable expectation of success and 3) the combined references must teach or suggest all the claim limitations. In the above rejection, there is no suggestion to prepare the blades of Japan 925 by a more complicated method and there is no reasonable expectation of success for such a blade manufacturing method.

Lagnier 002/Ishihara

Claims 1, 4-7, 9-11, 13, 15-16 and 18-19 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Lagnier 002 (US 5,783,002) or Ishihara (US 2002/0139164) and in view of at least one of Japan 923 and Japan 925. This rejection is respectfully traversed for the following reasons.

The main thrust of this rejection, as set forth in the Office Action, is that Lagnier 002 and Ishihara both disclose three-dimensional sipes/blades having at least two rows of alternating recesses and protrusions and based upon Japan 923 and Japan 925, it would have been obvious to form the recesses and protrusions of either Lagnier 002 or Ishihara to have planar vertices at the peak of the three dimensional feature.

Regarding Lagnier 002, in presenting the argument that it would have been obvious to

form the vertices of the protrusions and recesses as a planar vertex parallel to the sipe or blade centerline, the sentence at Col 2, lines 25-31 of Lagnier 002 is relied upon. At Col 2, lines 25-31, Lagnier 002 is describing the curves joining the quadrilateral bases of the recesses/protrusions to the vertices thereof; one of the possible configuration being "straight-line segments." However, in every instance of discussing the actual vertex of the recesses/protrusions, Lagnier 002 describes the vertices as "domelike" (col 3, lines 14-15), "rounded" (col 3, line 66 – col 4, line 1; col 4, line 23-26) and "concave curved faces" (col 4, line 45-47). Every drawing shows a curved vertex for the protrusions and recesses. To alter the vertex of the features of Lagnier 002 is a destruction of the teachings of Lagnier 002.

To establish *prima facie* obviousness there 1) must be some suggestion or motivation in the art to modify or combine the references; 2) must be a reasonable expectation of success and 3) the combined references must teach or suggest all the claim limitations.

In the rejection, the sole reason for modifying the features of Lagnier 002 is simply because it is shown by the secondary references – there is no motivation or reasoning taught or provided by either reference to fully substitute the rounded vertices of Lagnier 002 for flat planar vertices. In In re Fine, the court held against piece-meal assembly of references failing to have any motivation for combination, stating that one "cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." In re Fine, 837 F.2d 1071, 1075 (Fed. Cir. 1988). Such hindsight reconstruction is being employed herein. There is no teaching in the art to instruct one skilled in the art as to why the rounded vertices of Lagnier 002 should be transformed into planar vertices.

Also, Lagnier 002 appears to teach away from forming any type of vertex configuration other than the rounded vertex. The courts have held that when using a reference in a prior art rejection, the prior art must be considered in its entirety, including any disclosures that teach away from the claim. See W.L. Gore & Associates, Inc. v. Garlock, Inc., 721 F.2d, 220 USPQ 3030 (Fed. Cir. 1983), *cert. Denied*, 469 U.S. 851 (1984).

It is requested that this rejection be reconsidered and withdrawn.

Regarding Ishihara, Figures 43, 49, 7 and 9 are relied upon to show multiple rows of alternating recesses and protrusions in a sipe blade and sipe.

Figures 43 and 49 of Ishihara are actually the sipe blade as disclosed in JP 2001-1722 (paras. 24 and 31). A copy of the drawings from JP 2001-1722 is attached hereto as Exhibit

2. In the blades illustrated in Figs. 43 and 49, the protrusions and recesses in the blade and in the sipe formed therefrom terminate in a point – not in any planar vertex parallel to the blade or sipe centerline. This is evident from the vertical sideview in each drawing. In discussing the blades of JP 2001-1722, and JP 11-78432, Ishihara discloses that a planar line or planar area of the sipe blade yields a lower section modulus in the sipe, resulting in that portion of the blade being more vulnerable to deformation and breakage along the planar portions of the sipe due to bending loads the sipe is subjected to during molding (paras. 27-31). Thus, it appears that one of the goals of Ishihara is to eliminate planar lines or sections in the sipe blade. This is accomplished by providing the sipe blade with a secondary pattern to eliminate any planar lines in the sipe blade.

In the rejection, it is argued that it would be obvious to provide the sipe blades as disclosed by Ishihara to have planar sections – the exact feature that Ishihara teaches leads to deformation and potential breakage of the sipe during molding. Regardless of what is taught by Japan 923 and Japan 925, to form the blades of Ishihara to have planar sections is directly opposite the explicit teachings and direction of Ishihara. Again, the entire teachings of Ishihara must be considered and cannot be modified to negate the teachings.

To establish *prima facie* obviousness there 1) must be some suggestion or motivation in the art to modify or combine the references; 2) must be a reasonable expectation of success and 3) the combined references must teach or suggest all the claim limitations. Herein, there is no reasonable expectation of success, as Ishihara clearly teaches the negatives of having a planar section in the sipe blade, one skilled in the art at the time of the invention would not seek to introduce just such an element into the blade, and hence into any sipe formed by such a blade. It is requested that this rejection be reconsidered and withdrawn.

Claims 8, 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lagnier 002 or Ishihara and in view of at least one of Japan 923 and Japan 925 and further in view of Heinen (WO 99/48707).

Claim 14 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Lagnier 002 or Ishihara and in view of at least one of Japan 923 and Japan 925 and further in view of Lagnier 126 (US 4,994,126).

Both of these rejections rely upon the combination of Lagnier 002 with Japan 923 and Japan 925 and the combination of Ishihara with Japan 923 and Japan 925. As argued above, both of these rejection are against the teachings of the primary reference, and thus fail to

establish *prima facie* obviousness.

As the rejected dependant claims incorporate the subject matter of the independent claims, and the above rejections fails to establish *prima facie* obviousness for the indpendent claims, any rejection of the dependent claims based on the modified Lagnier 002 or Ishihara also fails. Applicants do not concede the obviousness of any not specifically argued dependent claim.

In light of this amendment, Applicants believe all of the claims now pending in the subject patent application are allowable. Thus, the Examiner is respectfully requested to allow all pending claims.

Respectfully submitted,

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